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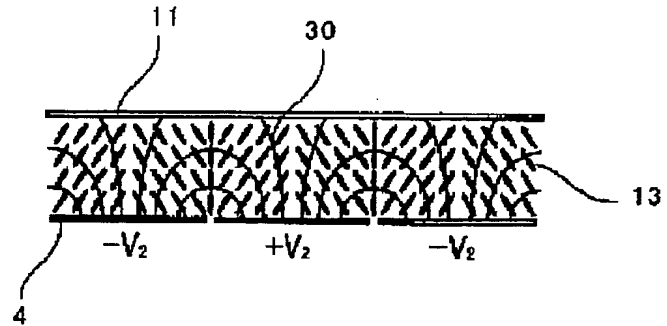
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TITLE : LIQUID CRYSTAL DISPLAY ELEMENT



ABSTRACT : PROBLEM TO BE SOLVED: To make it possible to embody a wide visual field angle with a high-fineness direct viewing type display by forming liquid crystals as vertical alignment layers and subjecting the liquid crystals to impressed driving in such a manner that the potential difference between adjacent pixels attains the threshold voltage of liquid driving or above at all times.

SOLUTION: When the alignment layers formed by forming polyimide precursor forms, by heating and baking are used after a polyimide precursor film is formed, the homeotropic alignment vertically aligned to a substrate is obtd. When the voltage V_2 higher than the threshold V_{th} at which the liquid crystals start moving is impressed on pixel electrodes 4, the electric fields at pixel ends are offset to a diagonal direction from the normal direction of the substrates and the liquid crystals 13 are aligned in the direction coincident with the equipotential surface of the synthesized electric field by the synthesized electric field of the electric field between the upper and lower substrates and the adjacent pixels. The liquid crystals 13 in the pixel central parts are also aligned in follow up to the alignment direction of the liquid crystals 13 at the pixel ends. Since the driving of the liquid crystal molecules in the specific direction is thus made possible, the need for such a process, which arrays the liquid crystal molecules by previously applying regulating force in the specific direction, is eliminated.

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